WHAT IS CLAIMED IS:

1. An isolated polynucleotide comprising a member selected from the group consisting of:

(a) a polynucleotide encoding the polypeptide as set forth in Figure 1.

(b) a polynucleotide encoding the polypeptide expressed by the DNA contained in ATCC Deposit No. 97186;

(c) a polynucleotide capable of hybridizing to and which is at least 70% identical to the polynucleotide of (a); and

(d) a polynucleotide fragment of the polynucleotide of (a) or (b).

2. The polynucleotide of Claim 1 encoding the polypeptide as set forth in Figure 1.

3. The polynucleotide of Claim 1 wherein said polynucleotide encodes a mature polypeptide expressed by the DNA contained in ATCC Deposit No. 97186.

4. A vector containing the polynucleotide of Claim 1.

5. A host cell transformed or transfected with the vector of Claim 4.

6. A process for producing a polypeptide comprising: expressing from the host cell of Claim 5 the polypeptide encoded by said polynucleotide.

7. A process for producing cells capable of expressing a polypeptide comprising transforming or transfecting the cells with the vector of Claim 4.

8. A receptor polypeptide selected from the group consisting of:

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(i) a polypeptide having the deduced amino acid sequence of Figure 1 and fragments, analogs and derivatives thereof; and

(ii) a polypeptide encoded by the cDNA of ATCC Deposit No. 97186 and fragments, analogs and derivatives of said polypeptide.

9. The polypeptide of claim 8 wherein the polypeptide has the deduced amino acid sequence of SEQ ID NO:2.

10. An antibody against the polypeptide of claim 8.

11. A compound which activates the polypeptide of claim 8.

12. A compound which inhibits activation the polypeptide of claim 8.

13. A method for the treatment of a patient having need to activate a PTH receptor receptor comprising: administering to the patient a therapeutically effective amount of the compound of claim 11.

14. A method for the treatment of a patient having need to inhibit a PTH receptor receptor comprising: administering to the patient a therapeutically effective amount of the compound of claim 12.

15. The method of claim 13 wherein said compound is a polypeptide and a therapeutically effective amount of the compound is administered by providing to the patient DNA encoding said agonist and expressing said agonist *in vivo*.

16. The method of claim 14 wherein said compound is a polypeptide and a therapeutically effective amount of the

compound is administered by providing to the patient DNA encoding said antagonist and expressing said antagonist *in vivo*.

17. A method for identifying compounds which bind to and activate the receptor polypeptide of claim 8 comprising:

contacting a cell expressing on the surface thereof the receptor polypeptide, said receptor being associated with a second component capable of providing a detectable signal in response to the binding of a compound to said receptor polypeptide, with a compound under conditions sufficient to permit binding of the compound to the receptor polypeptide; and

identifying if the compound is capable of receptor binding by detecting the signal produced by said second component.

18. A method for identifying compounds which bind to and inhibit activation of the polypeptide of claim 8 comprising:

contacting a cell expressing on the surface thereof the receptor polypeptide of claim 8, said receptor being associated with a second component capable of providing a detectable signal in response to the binding of a compound to said receptor polypeptide, with an analytically detectable ligand known to bind to the receptor polypeptide and a compound to be screened under conditions to permit binding to the receptor polypeptide; and

determining whether the compound inhibits activation of the polypeptide by detecting the absence of a signal generated from the interaction of the ligand with the polypeptide.

19. A process for diagnosing in a patient a disease or a susceptibility to a disease related to an under-expression of the polypeptide of claim 8 comprising:

determining a mutation in the nucleic acid sequence encoding the polypeptide of claim 8 in a sample derived from a patient.

20. A diagnostic process comprising:

analyzing for the presence of the polypeptide of claim 8 in a sample derived from a host.